## Claims

antenna.

- 1. A near-field radar obstacle detection apparatus and comprising:
- a fixed beam planar radar antenna; and
- an adaptation device for shaping a transmitted or received radiation of said antenna, including a plurality of dielectric elements that individually constitute different surface portions of an imaginary idealized quasi-spherical or quasi-cylindrical reflector disposed substantially at a near-field boundary of said
  - 2. The apparatus of Claim 1, wherein said dielectric elements are supported by a radome that is otherwise transparent to the transmitted or received radiation.
  - 3. The apparatus of Claim 2, wherein said dielectric elements are insert-molded into said radome.
  - 4. The apparatus of Claim 1, wherein two or more of said dielectric elements are combined about a diffraction point of said antenna to form a single multi-faceted dielectric element disposed substantially at said near-field boundary.

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5. The apparatus of Claim 1, wherein said idealized reflector is quasicylindrical, and said dielectric elements are defined by different surface portions of a post disposed substantially at said near-field boundary.

- 6. The apparatus of Claim 1, wherein said adaptation device compensates for off-axis or off-center orientation of said antenna.
- 7. The apparatus of Claim 1, wherein said adaptation device extends a field-of-view of said antenna.
- 8. The apparatus of Claim 1, wherein a radar antenna is mounted on a bumper of said vehicle, and said adaptation device is supported on a fascia that surrounds said bumper.